REMARKS

The Examiner is thanked for the thorough examination of the present application. Claims 1-35 remain in this application. Currently pending claims 1-35 are believed allowable, with claims 1, 14, 15 and 25 being independent claims. In support of claim allowance, the Applicants submit the following:

REJECTIONS UNDER 35 U.S.C. §112

Claims 1-35 were rejected under 35 U.S.C. §112, second paragraph, however, only claims 2 and 9 were specifically alleged to be unclear and indefinite.

According to the MPEP, "Definiteness of claim language must be analyzed, not in a vacuum, but in light of: (A) The content of the particular application disclosure; (B) The teachings of the prior art; and (C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made." MPEP § 2173.02. "Acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed, in light of the specification." MPEP § 2173.05(b).

In rejecting claim 2, the Examiner states, "it is uncertain what a decentralized protocol is." As discussed in the specification, a Map() function may be used to identifying target resources to which subgroups will distributed. The specification further states, "This map function can either be centralized (every requestor must contact a specific computing node to determine the identity of the corresponding server in

sending operation 706) or distributed (the mapping is stored in multiple nodes)." When read in light of the specification, as required by the MPEP, claim 2 sets out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity.

Claim 9 was reject under 35 U.S.C. §112, second paragraph. The Examiner alleges it is uncertain what is meant by generating a consolidated key identifier such that workload units belonging to the consolidated workload group share an identical sequence of values at a specified depth value of the consolidated key identifier. However, the specification clears describes that serves can also "consolidate load from a larger number of servers to a smaller server set." It is clear from the specification that consolidated workload units share an identical sequence of values at a specified depth value of the consolidated key identifier. See Fig. 4.

Furthermore, the Examiner fails to present supporting evidence establishing that one of ordinary skill in the art would not understand what is claimed.

For at least these reasons, the *prima facie* case of indefiniteness for claims 2 and 9 fails for not considering what one of ordinary skill in the art would understand is claimed, in light of the specification, as required by MPEP § 2173 et seq.

REJECTIONS UNDER 35 U.S.C. § 103

Independent claims 1, 15 and 25 were rejected under 35 U.S.C. § 103 as allegedly obvious over U.S. Patent Document No.

2002/0194173 (Bjornson) in view of U.S. Patent Document No. 2003/0086426 (Vandeweerd).

MPEP § 2142 states the following:

> The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness.

In addition, MPEP § 2141.02 states the following:

> Ascertaining the differences between the prior art and the claims at issue requires interpreting the claim language, and considering both the invention and the prior art references as a whole.

The Examiner notes that Saitoh discloses the following at paragraph [0060]:

> Execution of a searching task requires some quantity of computational resources (e.g., memory, disk, CPU time, etc.), and upon taking a task, a worker computer estimates the quantity of computational resources required to execute the task. This estimate is termed "RES(Task)." If RES(Task) is too large for that particular worker computer, the worker computer will divide the searching task into two smaller searching tasks and add one of them to the Task List kept in the VSM bulletin board. RES(Task) will then be recalculated for the one of the two smaller searching tasks retained by the worker computer. The two smaller searching tasks that are the parts of the now-divided searching task are termed "Buddies." Each new smaller searching task is marked as the other one's Buddy, and the original undivided task is marked as the "Parent" of each of the two new smaller searching tasks.

However, this is not what is claimed.

For example, claim 1 recites, in part, "increasing the

depth value of the key identifier associated with the parent workload group such that at least two child workload groups are identified." The Applicants respectfully submit there is no teaching in Bjornson of increasing the depth value of the key identifier associated with the parent workload group if an overload condition exists.

As the Examiner correctly points out, Bjornson does not teach that the figure labels from Fig. 5 are used as key identifiers for each workload unit in the system. In fact, there is no teaching or suggestion in Bjornson that the labels in Fig. 5 are anything but labels used to illustrate figure elements.

Moreover, Vandeweerd does not cure the deficiencies of Bjornson. As the Examiner notes, Vandeweerd discloses the following at paragraph [0118]:

> All the children of a block inherit the tag of their parent. For each child, `.n` is added to the parent tag where n is the number of the child. FIG. 22 shows this tagging scheme. If the user wants to change some configuration of a block, the tag of the block has to be known. The verification or test bench system can provide a list of all the tags on request. Once the tag is known, the user can change the configuration with a line of code like:

Again, this is not what is claimed.

Vandeweerd relates to a computer apparatus for displaying and manipulating sequences of frames of hierarchically organized framed data. Vandeweerd, Abstract. The tagging scheme of Vandeweerd is used to identify each generator in the tree forming the framed data. There is no teaching in Vandeweerd of increasing the depth value of the key identifier associated with the parent workload group if an overload condition exists.

As all the recitations of the claim were not met, the prima facie case of obviousness fails for not considering the invention as whole as required by MPEP § 2141.02. Independent claims 15 and 25 recite similar recitations as claim 1.

Turning to independent claim 14, the examiner alleges that Bjornson discloses a set of active resources cooperatively managing an entire set of identifier keys constituting the overall workload, each individual active resource managing a dynamically varying group of identifier keys, each active resource independently evaluating its own workload condition and deciding on the creation or consolidation of identifier keys to reduce or increase its workload. The Examiner cites Fig. 5 and paragraph [0060] of Bjornson in support of this allegation.

It is respectfully submitted that no disclosure is made in paragraph [0060] (see text above) of a set of active resources cooperatively managing an entire set of identifier keys constituting the overall workload, each individual active resource managing a dynamically varying group of identifier keys, each active resource independently evaluating its own workload condition and deciding on the creation or consolidation of identifier keys to reduce or increase its workload. Moreover, as the Examiner correctly points out, Bjornson does not teach that the figure labels from Fig. 5 are used as key identifiers for each workload unit in the system. In fact, there is no teaching or suggestion in Bjornson that the labels in Fig. 5 are anything but labels used to illustrate figure elements.

Moreover, paragraph [0118] of Vandeweerd (see text above), cited by the Examiner fails to disclose a set of active resources cooperatively managing an entire set of identifier

keys constituting the overall workload, each individual active resource managing a dynamically varying group of identifier keys, each active resource independently evaluating its own workload condition and deciding on the creation or consolidation of identifier keys to reduce or increase its workload.

Fig. 22 of Vandeweerd, also cited by the Examiner, similarly fails to disclose a set of active resources cooperatively managing an entire set of identifier keys constituting the overall workload, each individual active resource managing a dynamically varying group of identifier keys, each active resource independently evaluating its own workload condition and deciding on the creation or consolidation of identifier keys to reduce or increase its workload.

Furthermore, it is well understood that in order to rely on a reference under 35 U.S.C. §103, it must be analogous prior art. MPEP 2141.01(a). The Applicants respectfully submit that Bjornson is non-analogous art.

The subject matter of Bjornson is fundamentally different from the subject matter of the present invention. Bjornson primarily describes performing sequence analysis of nucleic acid sequence records of amino acid sequence records using a cluster of computers. Bjornson, paragraph [0051]. These records may be distributed across many databases. The primary task of Bjornson is pattern matching a set of query sequences against these sequence records. Id. A centralized shared memory (called a VSM) is used to coordinate computer activities. Bjornson, paragraph [0059]. Furthermore, computers a priori choose a subsequence of the processing task based on user-defined thresholds of resources and time. Bjornson, paragraph [0054]. These

subsequences are easily created by partitioning the records based on the user-defined thresholds. Bjornson, paragraph [0074].

By contrast, the subject matter of the present invention relates to a method, system and computer program product for dynamically adjusting a workload of an active resource. Application, pp. 21, ll. 15-19. The present invention does not perform pattern matching of nucleic acid sequence records of amino acid sequence records. Thus, Bjornson is in a field different from that of applicants' endeavor and would not have logically commended itself to an inventors' attention in considering the invention as a whole.

Additionally, the Office Action appears to reject the pending claims in a piecemeal examination process by assembling a multiplicity of references which merely meet individual terms of the claims, rather than providing sound reasoning on the basis of prior art that discloses the "heart" of the claimed subject matter. Thus, it is respectfully submitted that "Piecemeal examination should be avoided as much as possible. The examiner ordinarily should reject each claim on all valid grounds available, avoiding, however, undue multiplication of references." (See, MPEP §707.07(g) and §904.03).

As discussed above, Bjornson is concerned with the performing sequence analysis of nucleic acid sequence records of amino acid sequence records using a cluster of computers. Vandeweerd discloses a computer apparatus for displaying and manipulating sequences of frames of hierarchically organized framed data. No combination of the cited references appears to disclose or even suggest "dividing the workload into a

collection of workload units, each workload unit including its own key identifier identifying the workload unit", as recited in claim 1.

Indeed, it is unclear as to how the teachings of the Bjornson and Vandeweerd references are combined by the Office Action. That is, the Office Action merely cites individual references that meet certain terms of the claim and concludes that "It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to have the labeling scheme of Bjornson as presented in his Fig 5 be specifically used as key identifiers for each workload unit in the actual system, as taught by Vandeweerd, because it allows for task identification and maintaining relationships amongst tasks." There is no discussion as to how one ordinary skill in the art may modify Bjornson with Vandeweerd and, by building one upon the other, would arrive at the claimed subject matter.

In addition, the MPEP expressly provides that "The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in KSR International Co. v. Teleflex Inc., 550 U.S. ___, ___, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that 'rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.' In re Kahn, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)." MPEP § 2142.

In the present case, as evidenced above, not only the

Office Action fails to provide some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness, as mandated by the Courts, but it also sets forth obviousness rejections that are sustained with mere conclusory statements. The Office's argument that "It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to have the labeling scheme of Bjornson as presented in his Fig 5 be specifically used as key identifiers for each workload unit in the actual system, as taught by Vandeweerd, because it allows for task identification and maintaining relationships amongst tasks" appears to have been gleaned in hindsight from Applicant's own disclosure.

Accordingly, it is submitted that independent claims 1, 14, 15 and 25 are patentable over the prior art. Their respective dependent claims, which recite yet further distinguishing features, are also patentable over the prior art and require no further discussion herein.

CONCLUSION

In view of the forgoing remarks, it is respectfully submitted that this case is now in condition for allowance and such action is respectfully requested. If any points remain at issue that the Examiner feels could best be resolved by a telephone interview, the Examiner is urged to contact the attorney below.

No fee is believed due with this Amendment, however, should a fee be required please charge Deposit Account 50-0510. Should any extensions of time be required, please consider this a petition thereof and charge Deposit Account 50-0510 the required fee.

Respectfully submitted,

Dated: November 20, 2009

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